CLAIMS

1. A method for countering spam that disguises characters within an electronic message, said method comprising the steps of:

    locating portions of the electronic message where the difference between foreground color and background color is negligible;

    deleting from the electronic message foreground characters from said portions, to form a redacted electronic message; and

    forwarding the redacted electronic message to a spam filter.

2. The method of claim 1 further comprising setting a negligibility threshold such that, when the difference between foreground color and background color is negligible for a certain portion of the electronic message, said portion is invisible or nearly invisible to a typical human viewer of the electronic message.

3. The method of claim 1 wherein said locating step comprises comparing hue, saturation, and brightness of the foreground and background colors.

4. The method of claim 3 wherein information giving red, green, and blue components of foreground and background colors is

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given in the electronic message, and said information is converted into hue, saturation, and brightness values.

5. The method of claim 1 wherein said locating step comprises determining when at least one of the foreground color and the background color is a gray-scale color.

6. The method of claim 5 wherein, when at least one of said foreground color and background color is a gray-scale color, said locating step comprises comparing saturation and brightness values of the foreground color and the background color.

7. The method of claim 6 wherein the difference between the foreground color and the background color is deemed to be negligible when the difference in saturation between foreground and background is less than 5%, and the difference in brightness between foreground and background is less than 4%.

8. The method of claim 6 wherein the difference between the foreground color and the background color is deemed to be negligible when the difference in saturation between foreground and background is less than 3%, and the difference in brightness between foreground and background is less than 2%.

9. The method of claim 1 wherein neither the foreground color nor the background color is a gray-scale color, and the locating step comprises comparing hue, saturation, and brightness of the foreground and background colors.

10. The method of claim 9 wherein the difference between the foreground color and the background color is deemed to be negligible when the difference in hue between foreground and background is less than 6 degrees, and the combined difference between the saturation and brightness values of the foreground and background is less than 14%.

11. The method of claim 9 wherein the difference between the foreground color and the background color is deemed to be negligible when the difference in hue between foreground and background is less than 4 degrees, and the combined difference in saturation and brightness values of the foreground and background is less than 12%.

12. The method of claim 1 wherein the electronic message comprises e-mail, and the locating step comprises using a HTML parser.

13. The method of claim 1 wherein the locating step comprises using a color comparison module.

14. The method of claim 1 wherein the spam filter is responsive to characters within the electronic message.

15. The method of claim 1 wherein the electronic message is a message from the group of messages comprising e-mail, instant messages, chat room messages, newsgroup messages, wireless messages, Morse code messages, SMS messages, MMS messages, EMS messages, text pager messages, and graphics pager messages.

16. A computer-readable medium containing computer program instructions for countering spam that disguises characters within an electronic message, said computer program instructions performing the steps of:

locating portions of the electronic message where the difference between foreground color and background color is negligible;

deleting from the electronic message foreground characters from said portions, to form a redacted electronic message; and

forwarding the redacted electronic message to a spam filter.

17. The computer-readable medium of claim 16 wherein the locating step comprises comparing hue, saturation, and brightness of the foreground and background colors.

18. Apparatus for countering spam in an electronic message, said apparatus comprising:

means for locating portions of the electronic message where the difference between foreground color and background color is negligible;

coupled to the locating means, means for deleting from the electronic message foreground characters from said portions; and

coupled to the deleting means, a spam filter.

1   19. The apparatus of claim 18 wherein the locating means

2 comprises a color comparison module.

3   20. The apparatus of claim 18 wherein the deleting means

4 comprises a parser.